



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,109	10/10/2000	Siamak Nazari	SUN-P4432-ARG	4424

22835 7590 11/19/2003

PARK, VAUGHAN & FLEMING LLP  
508 SECOND STREET  
SUITE 201  
DAVIS, CA 95616

EXAMINER

TRAN, LAMBERT L

ART UNIT	PAPER NUMBER
----------	--------------

2142

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/686,109

Applicant(s)

NAZARI, SIAMAK

Examiner

Lambert L. Tran

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. This Office action is in response to the application filed on 10 October 2000.

#### ***Priority***

2. Acknowledgment is made of Applicant's claim for priority based upon Provisional Application No. 60/160,993 filed on 21 October 1999.
3. The effective filing date for the subject matter defined in the pending claims in this application is 21 October 1999.

#### ***Information Disclosure Statement***

4. The information disclosure statements (IDS) submitted on 27 August 2001 (paper #2), and on 12 September 2003 (paper #3) have been considered by the Examiner. It is noted that the IDS submitted on 12 September 2003 (paper #3) is the copy of paper #2 (see attached PTO 1449's).

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2142

6. Claims 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., U.S. Patent No 6,256,740, hereinafter referred to as Muller, in view of Jagannathan et al., U.S. Patent No 5,692,193, hereinafter referred to as Jagannathan.

7. In regard to claim 1, 8, 15, 22, Muller disclosed:

*detecting the presence of the device within a local computer system that is part of the distributed computing system [see Muller, ABSTARCT, col. 6, lines 11-17]; and*

*if an identifier has not been assigned to the device, assigning an identifier to the device by, attempting to retrieve the identifier from a local pool (JBOD enclosure) of device identifiers within the local computer system [see Muller, col. 5, lines 20-47]. However, Muller did not expressly disclose:*

*if the local pool is empty, retrieving at least one additional identifier for the local pool from a global allocator for device identifiers located within the distributed computing system, and assigning the retrieved identifier to the device so that the identifier can be used to reference the device. In the same field of network architecture and assignment of unique identifiers (thread ID) [see Jagannathan, ABSTRACT], Jagannathan disclosed: if the local pool (V's pool of thread control block TCB) is empty, retrieving at least one additional identifier for the local pool from a global allocator for device identifiers located within the distributed computing system, and assigning the retrieved identifier to the device so that the identifier can be used to reference the device [see Jagannathan, col. 14, lines 36-39]. An ordinary artisan in the art at the same time the invention was made, would have been motivated to look to a way to centralize naming service which generates and assigns name to all devices, since device entities computing over a high*

Art Unit: 2142

performance connectivity fabric act as architectural peers [see Muller, col. 3, lines 11-13, and lines 5-7].

8. Accordingly, it would have been obvious to one of ordinary skill in the network architecture art at the time the invention was made to have incorporated Muller teachings of assigning global unique ID with the teachings of Jagannathan of utilizing global and local pool ID's, for the purpose of better managing and synchronizing the activities of a collection of processes [see Jagannathan, col. 1, lines 48-49].

9. For the rationale set forth above, claims 1, 8, 15, 22 are rejected.

10. In regard to claims 4, 5, 6, 11, 12, 13, 18, 19, 20 Jagannathan disclosed a Thread Policy Manager and Thread Controller that manage the generation of unique (thread, TCB) ID, wherein: *retrieving at least one additional identifier from the global allocator; communicating the provisional identifier to the global allocator; if the global allocator approves the provisional identifier, recording the provisional identifier as a permanent device identifier; and if the global allocator rejects the provisional identifier, assigning a new identifier from the global allocator to the device.*

*retrieving at least one additional identifier from the global allocator involves retrieving a block of identifiers for the local pool from the global allocator* [see Jagannathan, col. 15, lines 43-67, col. 16, lines 1-67, col. 17, lines 1-50].

11. In regard to claims 7, 14, 21, Muller disclosed: *device can include: a disk drive; a tape drive; an I/O device; and a networking device* [see Muller, col. 4, lines 37-49].

Art Unit: 2142

12. Claims 2, 3, 9, 10, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller ( U.S. Patent No 6,256,740), in view of Jagannathan (U.S. Patent No 5,692,193), in further view of Taylor, Dave, "Teach Yourself UNIX In A Week", Copyright 1994 by Sams Publishing, hereinafter referred to as Taylor.

13. In regard to claim 2, 9, 16, the combination of Muller and Jagannathan disclosed the inventions substantially as claimed. However, Muller and Jagannathan did not disclose:

*wherein the identifier includes a device major number that specifies a device driver to be used to access the device, and a device minor number that identifies the device to be accessed by the device driver, wherein the device minor number includes an instance number that uniquely identifies an instance of the device, and a unit number that identifies all independently addressable sub-unit within the device.* In the UNIX textbook cited above, Taylor taught: *wherein the identifier includes a device major number that specifies a device driver to be used to access the device, and a device minor number that identifies the device to be accessed by the device driver, wherein the device minor number includes an instance number that uniquely identifies an instance of the device, and a unit number that identifies all independently addressable sub-unit within the device* [see Taylor, "Teach Yourself UNIX In A Week", p. 175].

An ordinary artisan in the art at the same time the invention was made, would have been motivated to look to a way to apply the global unique device ID to an UNIX system, since UNIX systems have been widely used and very popular in network computing.

14. Accordingly, it would have been obvious to one of ordinary skill in the network computing art at the time the invention was made to have incorporated teachings of Muller and Jagannathan in generating global unique device ID for the UNIX devices from Taylor teachings

Art Unit: 2142

for the purpose of providing an UNIX network computing system that better managing and synchronizing the activities of all network devices.

15. For the rationale set forth above, claims 2, 9, 16 are rejected.

16. In regard to claims 3, 10, 17, Taylor and Muller disclosed:

*the instance number is combined with the device major number and the unit number to produce the identifier [see Taylor, "Teach Yourself UNIX In A Week", p. 175, see Muller, col. 10, lines 1-21].*

17. Claims 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtman et al., U.S. Patent No 5,819,107, hereinafter referred to as Lichtman, in view of Jagannathan (U.S. Patent No 5,692,193).

18. In regard to claim 1, 8, 15, 22, Lichtman disclosed:

*detecting the presence of the device within a local computer system that is part of the distributed computing system [see Lichtman, ABSTARCT, col. 44, lines 60-64]; and*

*if an identifier has not been assigned to the device, assigning an identifier to the device by, attempting to retrieve the identifier from a local pool (device information acquisition process) of device identifiers within the local computer system [see Lichtman, col. 3, lines 44-50, and lines 6-12]. However, Lichtman did not expressly disclose:*

*if the local pool is empty, retrieving at least one additional identifier for the local pool from a global allocator for device identifiers located within the distributed computing system, and assigning the retrieved identifier to the device so that the identifier can be used to reference the device. In the same field of network architecture and assignment of unique identifiers (thread ID)*

Art Unit: 2142

[see Jagannathan, ABSTRACT], Jagannathan disclosed: *if the local pool (V's pool of thread control block TCB) is empty, retrieving at least one additional identifier for the local pool from a global allocator for device identifiers located within the distributed computing system, and assigning the retrieved identifier to the device so that the identifier can be used to reference the device* [see Jagannathan, col. 14, lines 36-39]. An ordinary artisan in the art at the same time the invention was made, would have been motivated to look to a way to complete a proper allocation of resources, since resources are allocated during the configuration process to permit the conflict-free use of the resources [see Lichtman, col. 1, lines 20-22].

19. Accordingly, it would have been obvious to one of ordinary skill in the network architecture art at the time the invention was made to have incorporated Lichtman teachings of assigning unique device ID with the teachings of Jagannathan of utilizing global and local pool ID's, for the purpose of better managing and synchronizing the activities of a collection of processes [see Jagannathan, col. 1, lines 48-49].

20. For the rationale set forth above, claims 1, 8, 15, 22 are rejected.

21. In regard to claims 4, 5, 6, 11, 12, 13, 18, 19, 20 Jagannathan disclosed a Thread Policy Manager and Thread Controller that manage the generation of unique (thread, TCB) ID, wherein: *retrieving at least one additional identifier from the global allocator; communicating the provisional identifier to the global allocator; if the global allocator approves the provisional identifier, recording the provisional identifier as a permanent device identifier; and if the global allocator rejects the provisional identifier, assigning a new identifier from the global allocator to the device.*

Art Unit: 2142

*retrieving at least one additional identifier from the global allocator involves retrieving a block of identifiers for the local pool from the global allocator [see Jagannathan, col. 15, lines 43-67, col. 16, lines 1-67, col. 17, lines 1-50].*

22. In regard to claims 7, 14, 21, Lichtman disclosed: *device can include:*

*a disk drive; a tape drive; an I/O device; and a networking device [see Lichtman, col. 44, lines 1-34].*

23. Claims 2, 9, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtman (U.S. Patent No 5,819,107), in view of Jagannathan (U.S. Patent No 5,692,193), in further view of Taylor, Dave, "Teach Yourself UNIX In A Week", Copyright 1994 by Sams Publishing, hereinafter referred to as Taylor.

24. In regard to claim 2, 9, 16, the combination of Lichtman and Jagannathan disclosed the inventions substantially as claimed. However, Lichtman and Jagannathan did not disclose: *wherein the identifier includes a device major number that specifies a device driver to be used to access the device, and a device minor number that identifies the device to be accessed by the device driver, wherein the device minor number includes an instance number that uniquely identifies an instance of the device, and a unit number that identifies all independently addressable sub-unit within the device.* In the UNIX textbook cited above, Taylor taught: *wherein the identifier includes a device major number that specifies a device driver to be used to access the device, and a device minor number that identifies the device to be accessed by the device driver, wherein the device minor number includes an instance number that uniquely*

Art Unit: 2142

*identifies an instance of the device, and a unit number that identifies all independently addressable sub-unit within the device* [see Taylor, "Teach Yourself UNIX In A Week", p. 175].

An ordinary artisan in the art at the same time the invention was made, would have been motivated to look to a way to apply the global unique device ID to an UNIX system, since UNIX systems have been widely used and very popular in network computing.

25. Accordingly, it would have been obvious to one of ordinary skill in the network computing art at the time the invention was made to have incorporated teachings of Lichtman and Jagannathan in generating unique device ID for the UNIX devices from Taylor teachings for the purpose of providing an UNIX network computing system that better managing and synchronizing the activities of all network devices.

26. For the rationale set forth above, claims 2, 9, 16 are rejected.

### ***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hopmann et al., U.S. Patent No 6,578,069, disclosed method, data structure, and computer program product for identifying a network resource.
- b. Aakre et al., U.S. Patent No 4,730,251, disclosed automatic I/O address assignment.
- c. Cuenod et al., U.S. Patent No 5,317,693, disclosed computer peripheral device network with peripheral address resetting capabilities.

Art Unit: 2142

- d. Cabrera et al., U.S. Patent No 6,496,839, disclosed persistent names for logical volumes.
- e. Farmwald et al., U.S. Patent No 6,415,339, disclosed memory device having a plurality of programmable internal registers and a delay time register.
- f. Stanley, U.S. Patent No 6,457,069, disclosed method and apparatus for providing support for dynamic resource assignment and configuration of peripheral devices when enabling or disabling plug-and-play aware operating systems.
- g. Winell, U.S. Patent No 6,625,145, disclosed use of lower IP-address bits.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lambert L. Tran whose telephone number is (703) 305-4663. The examiner can normally be reached on M-F at 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.

L.L.T  
Assistant Examiner  
GAU 2142  
November 14, 2003

MARC D. THOMPSON  
**MARC THOMPSON**  
PRIMARY EXAMINER

Marc Thompson  
Primary Examiner  
(703) 308-6750